

Amdt. dated March 28, 2005
Reply to Office action of Jan. 27, 2006

Serial No. 09/769,611
Docket No. SJO920000171US1
Firm No. 0037.0011

REMARKS/ARGUMENTS

1. Claims 1-11, 14-24, and 27-37 are Patentable Over the Cited Art

The Examiner rejected claims 1-11, 14-24, and 27-37 as anticipated (35 U.S.C. §102) by Davies (U.S. Patent No. 6,839,767). Applicants traverse.

Claims 1, 14 and 27 concern managing client transactions requesting access to a shared resource, and require: logging client transactions in a log file from multiple clients; determining one of the clients transmitting data at a transmission rate less than a threshold transmission rate; and denying subsequent transactions from the determined client access to the shared resource to provide additional space in the log file for new transactions from clients, other than the determined client, requesting access to the resource.

The Examiner cited col. 7, lines 20-30, col. 10, lines 55-67, and col. 11, lines 1-15 and 33-45 of Davies as disclosing the claim requirement of determining one of the clients transmitting data at a transmission rate less than a threshold transmission rate. (Final Office Action, pg. 3) Applicants traverse.

The cited col. 7 mentions that a network management system determines packets "in flight" and has access to statistical info about traffic it receives. From this information, the network management system estimates the current load on network resources. If this network load exceeds a threshold, then new transactions are denied admission until the network load drops. Nowhere does the cited col. 7 disclose determining one of multiple clients transmitting data at a transmission rate less than a threshold. Instead, the cited col. 7 discusses estimating a load on network resources, and denying new transactions if this load exceeds a threshold.

Further, the independent claims require determining a transmission rate of a client transmitting data below a threshold, whereas the cited col. 7 discusses determining the current load on network resources, which is different from the claimed data transmission rate of a client. Thus, the cited col. 7 does not disclose determining one client transmitting at a rate less than a threshold.

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Moreover, the cited Davie's technique operates under a different principle than the claimed technique. The cited col. 7 denies new transactions if the current load on the network processor exceeds a threshold, where the load is based on the amount of traffic, i.e., more traffic more load. Claims 1, 14, and 27 on the other hand, deny a transaction from a client if the client is transmitting below a threshold, i.e., too slow. Note, the technique of the independent claims would deny transactions from a client placing less burdens on the load on the processor because it would cut off a client transmitting below a threshold, i.e., too slow, whereas the cited Davies denies transactions if there is too much traffic and load on the network, i.e., clients are transmitting too much.

The cited col. 10 discusses setting a local threshold and determining whether a new session is acceptable with respect to the threshold. If not acceptable, a message indicating denial of the request is sent to the sender. Nowhere does the cited col. 10 disclose determining one client transmitting data at a transmission rate less than a threshold. There is no mention in the cited col. 10 that the cited threshold comprises a transmission rate of a client, as opposed to something else.

The cited col. 11 mentions that setting the local threshold starts with determining whether a congestion notification has been received. If so, the local threshold is reduced by measuring the current bandwidth usage (CBU) of the aggregate data flow and reducing the threshold to a percentage of the CBU. The threshold is not reduced below a guaranteed minimum bandwidth for the path. The cited col. 11, lines 33-45 discuss increasing the local threshold by comparing to a maximum configured bandwidth. If the local threshold is greater or equal to the maximum configured bandwidth, then the local threshold is maintained. If the local threshold is less and the duration since the last increase is less than an interval (T2), the local threshold is maintained.

The cited col. 11 nowhere discloses determining one client transmitting data at a transmission rate less than a threshold. Instead, the cited col. 11 discusses setting a local threshold to a percentage of the current bandwidth usage of the aggregate data flow. This disclosure of basing a local threshold on a current bandwidth usage of the aggregate flow is

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different from and does not disclose determining whether a client is transmitting data less than a threshold transmission rate.

Thus, the cited Davies does not disclose the claim requirement of determining one of the clients transmitting data at a transmission rate less than a threshold.

The Examiner found that col. 7, lines 20-40 and col. 9, lines 45-51 of Davies discloses the claim requirement of denying subsequent transactions from the determined client access to the shared resource to provide additional space in the log file for new transactions from clients, other than the determined client, requesting access to the resource. (Final Office Action, pg. 3) Applicants traverse.

As discussed, the cited col. 7 mentions that the network management system estimates the current load on network resources. If this network load, exceeds a threshold, then new transactions are denied admission until the network load drops. Nowhere does col. 7 disclose the claim requirements of denying subsequent transactions from the determined client access to the shared resource to provide additional space in the log file for new transactions from clients, other than the determined client, requesting access to the resource. Instead, the cited col. 7 discusses estimating a load on network resources, and denying new transactions if this load exceeds a threshold.

Moreover, the cited col. 7 discusses denying "new transactions" until the network load drops. This teaches away from, and is different, from the claim requirement that new transactions are received from clients other than the determined client requesting access to the resource. The cited col. 7 does not disclose the claim requirement of allowing and logging transactions from clients other than the determined client transmitting less than the threshold transmission rate. Further, nowhere does the cited col. 7 disclose the claim requirement that subsequent transactions are denied from the determined client to provide additional space in the log for new transaction from other clients. There is no mention in the cited col. 7 of providing additional space in the log.

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The cited col. 9 mentions that the granting and denying of sessions is recorded in the table, and the termination of sessions after long periods of inactivity is also recorded in the table. Nowhere does the cited col. 9 disclose the claim requirement of denying transactions from the determined client to provide space in the log for new transactions from clients other than the determined client requesting access to the resource. Further, nowhere does the cited col. 9 disclose that the determined client denied transactions is transmitting data below a threshold transmission rate. Instead, the cited col. 9 discusses recording, granting, and denying of sessions, and sessions that timed out.

Accordingly, claim 1, 14, and 27 are patentable over the cited art because the cited Davies does not disclose all the claim requirements.

Claims 2-11, 15-24, and 28-37 are patentable over the cited art because they depend from one of claims 1, 14, and 27, which are patentable over the cited art for the reasons discussed above. Moreover, the below discussed dependent claims provide additional grounds of patentability over the cited art.

Claim 2, 15, and 28 depend from claims 1, 14, and 27 and further require removing all pending transactions of the determined client from the log file. The Examiner cited the above discussed col. 9, lines 45-51 of Davies as disclosing the additional requirements of claim 2. (Final Office Action, pg. 3) Applicants traverse.

The cited col. 9 mentions that the granting and denying of sessions is recorded in the table, and the termination of sessions after long periods of inactivity are also recorded in the table. The termination is recorded for granted and denied sessions by deleting the entry from the session table. The cited col. 9 concerns managing entries in a session table. Nowhere does the cited col. 9 disclose the claim requirement of removing pending transactions of a determined client transmitting at a transmission rate below a threshold from a log file.

Accordingly, claim 2, 15, and 28 provide additional grounds of patentability over the cited art because the cited Davies does not disclose all the claim requirements.

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Claims 3, 16, and 29 depend from claims 1, 14, and 27 and require that the clients submit transactions requesting the resource during a session that the clients initiate, and determining one client session active longer than a threshold time period, wherein the determination of whether the client data transmission rate is less than the threshold transmission rate is made for the determined client whose session is active longer than the threshold time period, and wherein subsequent transactions are denied access to the shared resource for the client having the session active longer than the threshold period of time and having the data transmission rate less than the threshold transmission rate.

The Examiner cited the above discussed cols. 9 and 10-11 of Davies as disclosing the additional requirements of these claims. (Final Office Action, pg. 3) Applicants traverse.

The cited col. 9 mentions that the granting and denying of sessions is recorded in the table, and the termination of sessions after long periods of inactivity are also recorded in the table. The cited cols. 10 discusses determining whether a new session is acceptable with respect to the threshold. If not acceptable, a message indicating denial of the request is sent to the sender. The cited col. 11 mentions that setting the local threshold starts with determining whether a congestion notification has been received. If so, the local threshold is reduced by measuring the current bandwidth usage (CBU) of the aggregate data flow and reducing the threshold to a percentage of the CBU. The threshold is not reduced below a guaranteed minimum bandwidth for the path. The cited col. 11, lines 33-45 discusses increasing the local threshold by comparing to a maximum configured bandwidth. If the local threshold is greater or equal to the maximum configured bandwidth, then the local threshold is maintained. If the local threshold is less and the duration since the last increase is less than an interval (T2), the local threshold is maintained.

Although the cited Davies discusses determining whether a new session is acceptable based on a threshold of the current bandwidth usage, and recording granted and denied sessions in a table, nowhere does the cited Davies anywhere disclose that the determination of whether the client data transmission rate is less than the threshold transmission rate is made for the

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determined client whose session is active longer than a threshold time period. There is no disclosure in the cited Davies of comparing a client data transmission rate to a threshold for clients that have had a session active longer than a period. The cited col. 9 discusses terminating sessions that have been inactive for a long period. The claims do not require terminating sessions active longer than a threshold time, but instead claim determining whether such clients have a data transmission rate less than a threshold transmission rate, and then denying their transactions if they do. Nowhere does the cited Davies disclose the claim requirement that connections that have been active for more than a threshold period time are checked.

Accordingly, claims 3, 16, and 29 provide additional grounds of patentability over the cited art because the cited Davies does not disclose all the claim requirements.

Claims 5, 18, and 31 depend from claims 4, 17, and 30 and further require determining one client that has transmitted a threshold amount of data, wherein the determination and removal from the log file of pending transactions whose access to the resource has completed is made for all the pending transactions of the determined client that has transmitted the threshold amount of data. The Examiner cited col. 7, lines 20-40 and col. 9, lines 45-51 of Davies as disclosing the requirements of these claims. (Final Office Action, pg. 4) Applicants traverse.

The cited col. 7 mentions that a network management system determines packets "in flight" and has access to statistical info about traffic it receives. From this information, the network management system estimates the current load on network resources. If this network load exceeds a threshold, then new transactions are denied admission until the network load drops. The cited col. 9 mentions that the granting and denying of sessions is recorded in the table, and the termination of sessions after long periods of inactivity are also recorded in the table.

Nowhere do the cited cols. 7 and 9 disclose determining one client that has transmitted a threshold amount of data and then removing pending transactions for the determined client whose access to the resource has completed. The cited col. 7 mentions denying new transactions

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if network load is too high and the cited col. 9 mentions deleting entries or a session from the table for terminated sessions. The claims on the other hand require removing transactions from the log file for a client that has transmitted a threshold amount of data. There is no disclosure in these cited sections of removing transactions for a client that is determined to have transmitted a threshold amount of data.

Accordingly, claims 5, 18, and 31 provide additional grounds of patentability over the cited art because the cited Davies does not disclose all the claim requirements.

Claims 6, 19, and 32 depend from claims 1, 14, and 27 and further require that an oldest pending transaction logged in the log file is capable of preventing new transactions from being added to the log file. The Examiner cited col. 9, lines 45-51 of Davies as disclosing the additional requirements of these claims. (Final Office Action, pg. 4) Applicants traverse.

The cited col. 9 mentions that the granting and denying of sessions is recorded in the table, and the termination of sessions after long periods of inactivity are also recorded in the table. Further, the termination would be recorded for granted and denied sessions by deleting the entry for the session.

Although the cited col. 9 discusses recording a termination of a session by deleting the entry for the session, nowhere does the cited col. 9 disclose that an oldest pending transaction in the log file can prevent new transactions from being logged. In other words, nowhere does the cited col. 9 disclose logging transactions, nor disclose that an old pending entry for a session could prevent new sessions from being indicated in the table. Instead, the cited col. 9 concerns deleting an entry for a terminated session.

Accordingly, claims 6, 19, and 32 provide additional grounds of patentability over the cited art because the cited Davies does not disclose all the claim requirements

The Examiner rejected claims 7-9, 20-22, and 33-35 in view of prior art concerning the storing of transactions in a log file. Applicants submit that the Examiner is referencing art nowhere taught or suggested in the cited Davies. The Examiner has not provided any grounds to explain how Davies may be modified by art concerning storing transactions for storage in a log

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file using pointers. The cited Davies does not disclose nor concern how to log and process transactions directed to storage, but instead concerns how to manage sessions with clients.

If the Examiner maintains this rejection of claims 7-9, 20-22, and 33-35 in view of log file art separate and not found in Davies, Applicants submit that the Examiner must provide some suggestion or teaching in the art of modifying Davies to use the log file art for transactions to storage. Moreover, even if the Examiner could provide art that teaches or suggests modifying Davies with transaction logging art, the Examiner must change the grounds of rejection of claims 7-9, 20-22, and 33-35 from anticipation to obviousness.

2. Claims 12, 13, 25, 26, 38, and 39 are Patentable Over the Cited Art

The Examiner rejected claims 12, 13, 25, 26, 38, and 39 as obvious (35 U.S.C. §103) over Davies in view of Forecast (U.S. Patent No. 6,230,200). Applicants traverse.

Claims 12, 13, 25, 26, 38, and 39 are patentable over the cited art because they depend, directly or indirectly, from claims 1, 14, and 27 which are patentable over the cited art for the reasons discussed above.

Conclusion

For all the above reasons, Applicant submits that the pending claims 1-39 are patentable over the art of record. Applicants have not added any claims. Nonetheless, should any additional fees be required, please charge Deposit Account No. 09-0466.

The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

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